

APPARATUS AND METHODS FOR MINIMIZING
AND/OR ELIMINATING DILUTION AIR
LEAKAGE IN A COMBUSTION LINER ASSEMBLY

ABSTRACT OF THE DISCLOSURE

Variations in dilution air leakage paths in a gas turbine combustion liner assembly are minimized or eliminated to reduce emissions and variations in emissions from combustor to combustor. Leakage paths between the liner sleeve and venturi outer liner are minimized by using additional rivets at that joint. The leakage paths between the outer and inner sleeves of the venturi are eliminated by applying a peripheral weld to the end edges of the flanges of the outer and inner sleeves. The leakage paths between the venturi and outer liner are minimized while simultaneously maintaining accurate venturi throat area relative to the cap centerbody by match drilling holes through the liner sleeve and the overlapped flanges of the venturi and followed by riveting the parts together.